DEMOGRAPHIC AND LIFE STYLE DETERMINANTS OF HOUSEHOLD CONSUMPTION PATTERNS

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The authors propose a model of household consumption based on existing literature and provide empirical evidence substantiating the typology. The basic empirical issue focuses on the role of life style patterns and socio-economic demographic factors that affect household consumption patterns. Using a life style survey of adult females in the U.S., underlying life style patterns were identified and combined with socioeconomic variables to discriminate among consumption groups. Analyses revealed significant differences among those groups in terms of both life styles and socioeconomic status. Implications for future research are also discussed.

INTRODUCTION

When adult family members are employed outside the home, less time and energy is left to carry out household tasks. Since consumption-related activities are the most time-intensive of all household tasks (Walker and Woods 1976), new consumption patterns are likely to emerge as households attempt to cope with the time pressures resulting from dual employment (Strober and Weinberg 1980).

Increasing housewife participation in the workforce in recent years has prompted renewed interest in exploring various aspects of consumption behavior forming among U.S. households. For example, the impact of the wife's occupational status on a wide range of product categories has been examined, including the purchase and ownership of durables (Bryant 1988; Strober and Weinberg 1980;Weinberg and Winer 1983), food, beverage and alcohol consumption (Schaninger and Allen 1981), convenience

consumption (Reilly 1982), and expenditures on services (Bellante and Foster 1984).

This study builds on this literature by proposing a framework to facilitate systematic examination of the dimensions underlying household consumption. Further, we explore the relationship between such dimensions and socioeconomic and psychographic predictor variables. In contrast to previous studies which have examined consumption differences across the wife's occupational-status groups, the present research expands the scope of inquiry, identifying structural dimensions of consumption and then profiling such dimensions by means of socio-economic and life style variables.

MAJOR DIMENSIONS OF HOUSEHOLD CONSUMPTION

Time as a household resource is fixed. Consequently, the spouse's employment outside the home reduces the total amount of time available for household tasks. Hence, time efficiency within the household has received a great deal of emphasis in the literature.

A number of authors have investigated the hypothesis that the wife's employment and expenditures on durables and convenience items are substitutes; i.e., as the wife's employment rises, so do family expenditures on durables and convenience items. For example, Strober and Weinberg (1977; 1980) found no significant differences between working wives and non-working wives with respect to substitution of time-saving appliances for their own market time. However, they found that employed wives spent less time on household production than non-employed wives. Similarly, Bivens and Volker (1986) reported that value-added production within the household was negatively associated with female employment. Schaninger and Allen (1981) utilized a trichotomous classification variable to operationalize the wife's occupational status (non-working, low occupational status, high occupational status) in their analysis, and found significant differences among the three groups regarding both ownership of labor-saving minor and major appliances and use of convenience items. Low-occupational status families consumed more instant convenience foods while high-occupational status households consumed more of convenience foods requiring more preparation. In comparison with those non-working, both high-and low-occupational status families owned more labor-saving appliances.

Using a structural-equation model, Reilly (1982) determined that the wife's occupational status was indirectly related to ownership of time-saving durables and convenience consumption through the construct of role overload. His findings indicated that working wives were more likely than others to serve convenience food and to own time-saving durables. Using the 1972-1973 Consumer Expenditure Survey, Bellante and Foster (1984) concluded that the wife's participation in the labor force, measured by weeks worked and hours worked per week, was positively associated with household expenditures on time-saving services such as food away from home and child care. These findings supported what Nichols and Fox (1983) had found in their study of time pressure on working wives. Jackson, McDaniel and Rao (1985) investigated psychographic differences between working wives and housewives and concluded that working wives tended to dislike food shopping and cooking primarily due to time constraints.

At the macromarket level, consumption patterns are expected to transform in re-

sponse to social and institutional forces. In a theoretical piece, for example, Firat and Dholakia (1982) described characteristics of the dominant consumption pattern in the highly industrialized Western countries. One such characteristic is passivity in consumption which entails the introduction of effort-saving devices such as vacuum cleaners, electric can openers, dishwashers and so on. This substitution of capital equipment for labor tends to release labor from household tasks for productive jobs outside the home, which leads to a shift away from home production of goods to convenience consumption, and rapid diffusion of a variety of household time/effort-saving devices.

Uusitalo (1979) had earlier reached such conclusions when she empirically derived major underlying dimensions of consumption using the Finnish Consumer Expenditure Survey data. Results showed that a "modern" consumption style entails much use of convenience-oriented items such as preprocessed and packaged foods whereas a "traditional" style consisted of food produced at home using raw materials such as flour, grain, sugar, pork, etc.

Kaufman (1987) found that while variance existed in the usage of a specific time-saving durable (microwave oven), the usage frequency was not influenced by women's occupational status. In a study of families grouped by wife's employment status, Darian and Klein (1989) found that working-wife families preferred food prepared away from home instead of convenience foods. Furthermore, families with high-earning, full-time working wives purchased the most meals prepared away from home, while the greatest expenditures on convenience foods came from families with moderate-earning working wives. These results are confirmed by the fact that inflation-adjusted per capita spending on away-from-home and convenience foods rose more than 10% between 1980 and 1988.

Jensen and Rao (1989) found that working and nonworking wives held similar views toward food purchase, preparation, and consumption. However, working wives disliked shopping more than nonworking wives did.

Kim (1989) investigated the effects of a wife's working status on time-saving tendencies in household production among a large sample of Canadian households. The results revealed that saving time by purchasing meals away from home was a popular strategy used by working wives in coping with time pressures. However, working and nonworking wives did not differ in ownership of durables and their reliance upon convenience foods.

What is clear from this review is that increasing participation of women in the workforce has led to two concurrent trends shaping household consumption patterns. First, there seems to be a shift away from home production of goods and services as time has become a more scarce commodity. Secondly, households utilize labor-saving devices in an attempt to increase efficiency in time use. We believe these forces, decreasing home production and increasing efficiency in time use, characterize contemporary consumption patterns within the American household.

A MODEL OF HOUSEHOLD CONSUMPTION PATTERNS

The forces identified above can be combined in a two-factor model of consumption pattern shown in Figure 1. The "home production" dimension measures the extent to which

households rely upon consumable (pre-processed vs. home produced) goods. The "efficiency in time use" dimension distinguishes households in terms of their reliance on labor-saving devices. These dimensions are not necessarily mutually exclusive.

Certain households may emphasize home production of goods, at the same time making extensive use of time/labor-saving devices. This is born out by the fact that heavy reliance on homemade goods creates a need for such things as electric knives, freezers, food processors, etc.

Note from the figure that quadrants two and three represent truly modern and traditional consumption patterns, the former characterized by extensive use of time-saving devices and very little use of homemade items, while the reverse is true for the latter. In these cases household technology and time spent on home production are substitutes. Quadrants one and four would capture consumption patterns that are neither quite modern nor fully traditional, but somewhere in between. Quadrant one represents a consumption pattern that emphasizes home production of goods, and employs a high level of household technology (indicated by extensive use of time-saving devices). In this instance household technology and home production are complements. On the other hand, quadrant four relies heavily on preprocessed goods while avoiding many time-saving possessions.

The proposed model not only extends the existing literature, but also is of value to marketing practitioners. When combined with demographic and life style profiles, categorization of households into the four groups suggested by the model can provide significant insights into the marketing of a

FIGURE 1

A MODEL OF HOUSEHOLD CONSUMPTION PATTERNS

Efficiency in Time Use / Durables		Home Production: High	Home Production: Low
	High	Semi-Traditional Consumption 1	Modern Consumption 2
	Low	Traditional Consumption 3	Simplicity Consumption 4

variety of products and services. For example, households characterized by both modern and semi-traditional consumption patterns (quadrants 1 and 2) would be prime targets for an array of time/labor-saving goods and services. The difference between the two groups, however, is in the type of time/labor-saving devices that would be attractive to each. For the modern group, goods and services that minimize home production would be highly desirable. The semi-traditional category, on the other hand, would be an appropriate target for goods and services that facilitate home production. Marketers of raw materials and ingredients typically used to produce goods and services at home would find traditional households (quadrant 3) an attractive target. Finally, households in the simplicity group would constitute a high priority target for pre-processed goods that do not require the use of time/labor-saving devices such as ready-to-eat food items.

We subsequently test and substantiate this model. Specifically examined are the contributions of socio-demographic and life style factors to the explanation of each consumption typology.

METHOD

Data

The analyses reported in this article are based on life style survey data made available by the Leo Burnett Advertising Agency.[1] The survey, conducted in 1979, contained a variety of general (300+) and product-specific life style items, and numerous questions relating to product and brand consumption. As with a typical life style survey, these items tapped activities, interests, and opinions (AIO) dimensions (see Lazer 1963; Plummer 1971 for details).

The authors are cognizant of the potential limitations to contemporary generalizations from this data set. However, the advantages of utilizing a nationally representative sample of consumers on concepts of such relevance to consumer study must be underscored (Kiecolt and Nathan 1985; Churchill 1987). Marketers have commonly consulted such cross-sectional historical data (10-15 years of age) in redressing substantive conceptual (Lesch and Celuch 1991; Hallen, Johanson and Seyed-Mohamed 1991; Kahle 1986; Schaninger Bourgeois and Buss 1985) and methodological (Dillon and Mulani 1989) questions. Insights from "real" consumers gained through commercial sources (assuring data of extraordinary quality) are of considerable value: a strong baseline will have been established for future (contemporary) comparisons, permitting time-lapsed comparisons and extensions of this fledgling conceptual effort.

Sample

Respondents in this study were 1852 females ages 18 to 65, selected from a consumer mail panel in such a manner as to reasonably represent the general characteristics of the population. Sample members were, on average, slightly older when compared with all women 18-65 (38% sample vs. 31% U.S., Statistical Abstract of the U.S., 1980), and the portion married favored by our data (79% sample vs. 64% U.S.). Average household size was essentially equivalent in the two groups (3.5% sample vs. 3.3% U.S.). Thus, while these data approximate aspects of the U.S. households during 1979, some caution would be warranted in attempts to generalize.

Operational Definitions of Consumption Patterns

As noted earlier (Figure 1) we conceived of consumption patterns in terms of home production and efficiency in time use dimensions. Ideally, the home production dimension should be measured relative to a typical array of goods and services purchased, consumed and disposed of by the household. This study used food items that, in our judgment, represented either heavy reliance on preprocessed goods or an emphasis on home production (See Table 1). Our food products represent items used among the different meal and "snacking" contexts while the durable goods chosen reflect on food preparation, consumption and disposal, clothing care, and personal hygiene. While not exhaustive, our choices reflect a concern for content validity (range of consumption contexts) and correspond well to earlier efforts (See Uusitalo 1979, 1982 for example). Note that for each homemade food item, at least one preprocessed counterpart was included; this was done to maximize the variance between what may in reality be correlated factors; i.e., consumption among kinds of soup is not likely independent.

TABLE 1

FOOD ITEMS AND TIME SAVINGS PRODUCT CATEGORIES

Food Items*	Time Saving Products**
Homemade Pizza	Dishwasher
Homemade Stew	Clothes Washer
Homemade Waffles	Dryer
Homemade Cookies	Refrigerator
Homemade Soup	Freezer
Homemade Biscuits	Microwave
Homemade Lemonade	Crock Pot
Preprocessed Pizza	Food Processor
Preprocessed Stew	Electric Coffee Pot
Preprocessed Waffles	Electric Knife
Preprocessed Cookies	Electric Toothbrush
Preprocessed Soup	Trash Compactor
Preprocessed Biscuits	Disposer
Preprocessed Lemonade	

* These items are coded on a 6-point scale with 1 = never used, and 6 = used once a day or more.

** These items are nominally scaled as 1 = owned, and 2 = not owned.

Since this dimension is conceived as a continuum, the relative position of respondents along this dimension may best be represented in terms of a ratio scale. Thus, frequency of use of homemade foods was compared with frequency of use of preprocessed foods to create a food production index. This index was then used as a proxy to measure home production. The formula used to create the index is shown in Equation 1:

$$\text{Food Production Index} = \frac{\text{homemade items}}{\text{preprocessed goods}}$$

Consumption frequencies for the range of homemade items were summed, as were consumption frequencies for the preprocessed counterparts. The Food Production Index was then computed, and a frequency distribution of the computed scores obtained. This was then broken at the median, and persons grouped as being High or Low on this component of consumption.

The second dimension of Figure 1, efficiency in use of time within the household, taps the level of household technology and may best be measured in terms of actual time savings accrued to the household as a result of utilizing various time-saving devices. Since such information was not available in our data set, we employed the measure of ownership of household appliances as a proxy for efficiency in time use within the household (See Table 1).

The number of appliances owned by each respondent was computed, and the persons assigned to either a High or Low time-saving orientation based on their score relative to the median split along the distribution of scores. All respondents were classified into one of the four groups exclusively based on their score on the Food Production Index (FPI) and Time Saving Index (TSI) as follows:

Semi-Traditional Consumption:
high on both FPE and TSI
Traditional Consumption:
high on FPI and low on TSI
Modern Consumption:
low on FPI and high on TSI
Simplicity Consumption:
low on both FPI and TSI

These groups were used as the criterion set in the analyses.

Identification and Interpretation of Life Style Dimensions

The analysts followed general practice at this stage, first screening the correlation matrix to remove variables which did not meet a minimum criterion for inclusion in the data reduction task. Simply, the amount of noise in such data sets is often great; therefore, to be included in the factor analysis a variable had to express a bivariate Pearson r of at least 0.30 with any of the other 300+ life style items.

This procedure effectively reduced the variable set to a more manageable number (83), and considerably improved the likelihood of identifying latent structures. While ex post facto or exploratory analyses of this type have been criticized as "blind" research efforts (Marradi 1981), the marketing discipline has accepted the utility of ex post facto designs in both practice, and as a heuristic (Arndt and Uusitalo 1980; Horton 1979; Lesser and Hughes 1986; Uusitalo 1979; Wind 1978).

This (reduced) set of variables (life style only) was submitted to a principal components analysis with a varimax rotation.

Determination of the number of factors to retain for subsequent analyses was on the basis of the scree test (Cattell 1966; Stewart 1981). Also, factors which did not have a minimum of three items loading highly were not retained for discussion or analysis, as it was believed that these lacked adequate content validity (Kerlinger 1973). Interpretation was performed using a min/max rule: to be retained, a variable had to load at least 0.40 on no more than one dimension, with the next highest (alternate) loading not to exceed 0.25. Finally, factor scores were calculated for each case on the derived factors and used as a partial set of predictors in the analysis (below).

ANALYSIS

Socioeconomic variables measured at respondent (marital status, age, education) and household (occupation, income, and family size) levels were combined with life style dimensions as predictors in a linear discriminant analysis with a varimax rotation to differentiate among various consumption patterns suggested by the proposed model (Figure 1).

Results

The results of the factor analysis of life style items are displayed in Table 2. Initially 23 factors met the default cutoff of at least 1.0 minimum eigenvalue, but use of the decision rules above resulted in retention of only 15 factors for subsequent analysis.

TABLE 2

FACTOR RESULTS

Factors/Items		Loading
1:	Religiosity 7.1% Variance	
	I often read the Bible.	.68
	I go to church regularly.	.67
	If Americans were more religious, this would be a better country.	.66
	Spiritual values are more important than material things	.59
	I believe that miracles happen daily	.54
2:	Anxiety 5.9% Variance	
	I often have trouble getting to sleep.	.61
	I'd like to run away from it all.	.54
	I have trouble relaxing.	.52
	I often dream of leaving my present life and doing whatever I want.	.50
	I feel I have too many responsibilities.	.49
	I worry a lot about my health.	.44

TABLE 2 Continued

FACTOR RESULTS

Factors/Items		Loading
3:	Moral Values 5.4% Variance	
	Homosexuals are a threat to our way of life today.	.77
	A person should be refused a job because he is a homosexual.	.75
	Marijuana should be legalized.	.46
	Movies should be censored.	.41
	Liquor is a curse on American life.	.42
4:	Home Pride 3.3% Variance	
	I am a very neat and organized person.	.69
	I take a great deal of pride in my home.	.68
	Visitors often comment on how nice our home or apartment looks.	.64
	I am uncomfortable when my home is not completely clean.	.59
5:	Artistic Appreciation 3.1% Variance	
	I enjoy going to concerts.	.88
	I enjoy going to plays.	.87
	I enjoy going through an art gallery.	.58
6:	Female Role 2.6% Variance	
	Most women are perfectly capable of combining a career & marriage w/children.	.70
	Women shouldn't work if they have small children.	-.64
	A fulltime job outside the home keeps a woman feeling younger, happier in today's world.	.59
	A woman's place is in the home.	-.54
	I really want a career.	.44
7:	Concern with Food Additives 2.4% Variance	
	I worry about preservatives in convenience packaged foods.	.80
	I look at the labels for additives and preservatives.	.67
	I don't trust the chemicals that are being put into foods today.	.67
	Natural foods are better than processed foods.	.51
8:	Style Consciousness 2.3% Variance	
	It's very important for me to have the latest hairstyle.	.64
	The new styles turn me on.	.63
	I spend a lot of time in front of the mirror in the morning.	.63
	Women wear too much makeup these days.	-.49
9:	Saving Orientation 2.2% Variance	
	I'm not very good at saving money.	.68
	I save a certain amount of money each month.	-.64
	No matter how fast our income goes up, we never seem to get ahead.	.63
	Our family is too heavily in debt today.	.59

TABLE 2 Continued

FACTOR RESULTS

Factors/Items		Loading
10:	Child Orientation 2.1% Variance	
	When making important family decisions, consideration of the children should come first.	.75
	My children are the most important thing in my life.	.71
	I worry about the kind of world my children will live in.	.56
11:	Deal Proneness 2.0% Variance	
	I shop a lot for specials.	.78
	I buy a lot during the sales.	.75
	I usually watch the advertisements for announcements of sales.	.73
12:	Attitudes Toward Alcohol 1.9% Variance	
	I drink more than I should.	.79
	I often have a cocktail before dinner.	.76
	A party wouldn't be a party without liquor.	.54
13:	Home Orientation 1.8% Variation	
	I stay home most evenings.	-.72
	I am a homebody.	-.58
	I do more things socially than do most of my friends.	.55
	I am doing more entertaining in my home than ever before.	.40
14:	Family Unity 1.7% Variance	
	Our family is a close-knit group.	.76
	I am confident my family loves me.	.70
	Our family seems to argue a lot with each other.	-.62
15:	Weight Consciousness 1.6% Variance	
	I am overweight.	.83
	I often eat too much.	.80
	I try to keep my weight under control.	.50
	Total Variance = 45.4%	

Seen from Table 2, all 15 factors are easily interpretable. For example, the first factor, "Religiosity," is a unipolar factor containing items which reflect a strong religious orientation. We labeled the second factor "Anxiety," also a unipolar factor, since items loading on it reflect a state of uneasiness and worry. The third factor "Moral Values," is a bipolar factor depicting conservative standards on the one hand and liberalism on the other. Factor four describes "Home Pride." Neatness and cleanliness of the home environ-

ment is highly desired. The remaining factors can be interpreted in a similar fashion.

In short, and in order of importance (variance explained), Religiosity, Anxiety, Moral Values, Home Pride, Artistic Appreciation, Female Role, Concern with Food Additives, Style Consciousness, Saving Orientation, Child Orientation, Deal Proneness, Attitudes Toward Alcohol, Home Orientation, Family Unity, and Weight Consciousness capture the underlying life style components. These account for about 45 percent of all variance in the set.

The results of the multiple discriminant analysis for the four-group factorial are reported beginning in Table 3. Factor scores from life style dimensions and socioeconomic-demographic variables were used as predictors, while consumption pattern was the criterion.

TABLE 3

DISCRIMINANT ANALYSIS SUMMARY RESULTS

Univariate ANOVAs

Variable	Wilks' Lambda	F	Significance
Religiosity	.985	3.15	.024
Anxiety	.976	5.22	.001
Moral Values	.984	3.45	.016
Home Pride	.991	1.85	.135
Artistic Appreciation	.991	1.79	.147
Female Role	.999	.19	.902
Concern with Food Additives	.977	4.80	.002
Style Consciousness	.984	3.29	.020
Saving Orientation	.995	.97	.404
Child Orientation	.981	3.93	.008
Deal Proneness	.991	1.87	.132
Attitudes Toward Alcohol	.991	1.77	.150
Home Orientation	.995	1.04	.374
Family Unity	.996	.70	.546
Weight consciousness	.991	1.79	.146
Age	.980	4.31	.005
Marital Status	.960	8.84	.000
Family Size	.992	1.70	.165
Education	.993	1.32	.265
Occupation	.930	15.85	.000
Income	.921	18.21	.000

TABLE 3 Continued

DISCRIMINANT ANALYSIS SUMMARY RESULTS

Discriminant Summary

Function	Eigen-Value	Percent of Variance	Canonical Correlation	Wilks' Lambda	Chi-Squared	DF	Significance
1.	.241	61.30	.419	.723	204.63	63	.000
2.	.088	25.27	.284	.877	82.16	40	.000
3.	.040	13.38	.211	.955	28.80	19	.069

Canonical Discriminant Functions Evaluated at Group Means

	Function 1	Function 2	Function 3
Group 1	.460	-.135	-.285
Group 2	.453	.296	.248
Group 3	-.281	-.361	.154
Group 4	-.633	.330	-.143

Three functions were obtained in differentiating the groups. These, and related univariate summary statistics, along with resultant group centroid coefficients are shown in Table 3. At first glance, it is clear that a mix of the two sets of predictors was required to maximize group differences. Further insight into the relative importance of the predic tors is obtained by perusal of the structure matrix in Table 4 (correlations among the predictors and the canonical functions). The first function is clearly a socioeconomic dimension dominated by three variables that are strong discriminators, income, occupation and marital status.

TABLE 4

STRUCTURE MATRIX

	Function 1	Function 2	Function 3
Income	.621	-.164	.068
Occupation	-.584	-.032	.145
Marital Status	-.410	-.213	-.163
Deal Proneness	.199	.025	.069
Weight Consciousness	.169	-.156	.040
Education	.164	.066	-.003
Home Orientation	.147	-.001	.072
Concern with Food Additives	-.016	.425	.373
Style Consciousness	.090	-.393	-.007
Religiosity	.074	.375	-.155
Home Pride	.021	.305	.088
Age	.234	.293	.133
Child Orientation	-.223	-.260	-.192
Artistic Appreciation	-.139	.216	-.042
Family Size	.109	-.210	-.177
Family Unity	.085	.141	.006
Anxiety	-.187	-.200	.535
Moral Values	.117	.203	-.452
Attitude toward Alcohol	.116	.131	-.288
Saving Orientation	-.130	.007	-.137
Female Role	.005	-.035	-.128

The second function relies primarily on loadings from life style factors for its composition. Concern with Food Additives, Style Consciousness, Religiosity, and Home Pride seem to be strong discriminators among the groups. A relatively small portion of variance among the groups was explained by socioeconomic variables of age and family size.

Finally, the third (and marginal) function loads exclusively on life style dimensions. Anxiety contributes the most to group differences, followed in turn by Moral Values, Attitude Toward Alcohol, Saving Orientation and Female Roles.

The classification matrix in Table 5 was examined to assess the accuracy of these findings. For comparison, accuracy was based on group size, with no formal "holdout" employed. The results indicated that the amount of discrimination contained in the predictor set was well above what would be expected by chance alone.

TABLE 5

CLASSIFICATION RESULTS

Actual Group	No. of Cases	Predicted Group Membership* 1	2	3	4
Group 1	163	71	35	38	19
		43.6%	21.5%	23.3%	11.7%
Group 2	150	36	62	37	15
		24.0%	41.3%	24.7%	10.0%
Group 3	191	37	22	104	28
		19.4%	11.5%	54.5%	14.7%
Group 4	141	25	22	37	57
		17.7%	15.6%	26.2%	40.4%

Percent of "Grouped" Cases Correctly Classified: 45.58%

* Prior Probabilities

Group	Prior
1	.252
2	.232
3	.296
4	.218
Total	1.000

As demonstrated in Table 6, profiling the groups created by the consumption typologies reveals considerable insight into differences.

In terms of socioeconomic background, the semi-traditional group is comprised of relatively younger respondents, most likely to be a single parent, in clerical or blue collar occupations. As might be expected, this group has the smallest household income. This group's life style exhibits high religiosity, a low level of anxiety and conservative moral standards. These individuals are somewhat concerned with food additives, are least style conscious and express relatively high child orientation. This subset portrays a middle-of-the-road life style orientation, as members do not express extreme positions on life style dimensions with the exception of style consciousness. Judged by their income and occupation, they tend to be of lowest status among the groups.

TABLE 6

SUMMARY OF GROUP MEANS*

Discriminator	Group 1** Semi-Traditional	Group 2 Traditional	Group 3 Modern	Group 4 Simplicity	All Groups
Religiosity	.04	.05	-.22	-.02	-.04
Anxiety	-.03	-.01	.20	-.21	-.00
Moral Values	.07	.02	-.15	.18	.02
Concern w/ Food Additives	.06	.17	-.12	-.20	-.03
Style Consciousness	-.22	-.11	.07	.05	-.04
Child Orientation	.09	-.21	.13	-.00	.01
Age	39.00	43.20	37.80	40.40	40.00
Marital Status***	1.40	1.00	1.40	1.20	1.20
Occupation***	4.40	3.50	4.20	3.40	3.90
Income ***	6.80	8.40	7.60	8.50	7.80

* All $p < .05$

** Group 1: high on both FPI and TSI
Group 2: high on FPI and low on TSI
Group 3: low on FPI and high on TSI
Group 4: low on both FPI and TSI

*** These variables had been operationalized in the survey as follows:
Marital Status: 1 = married 2 = single 3 = widowed 4 = divorced 5 = separated
Occupation:
1 = higher executive/major professional
2 = business manager/less professional
3 = administrative/semi-professional
4 = clerical
5 = skilled manual employee
6 = machine operator
7 = unskilled employee
8 = never employed

Year Income:
1 = under $5,000
2 = $ 5,000 - $ 5,999
3 = $ 6,000 - $ 6,999
4 = $ 7,000 - $ 7,999
5 = $ 8,000 - $ 8,999
6 = $ 9,000 - $ 9,999
7 = $10,000 - $14,999
8 = $15,000 - $19,999
9 = $20,000 - $24,999
10 = $25,000 - $34,999
11 = $35,000 - $49,999
12 = $50,000 and over

The traditional group has the oldest respondents, most likely to be married, and holding semi-professional or clerical occupations. Members enjoy the second highest income of the four groups. In life style terms, these persons exhibit highest religiosity, with almost average levels of anxiety, and morality. This group is most highly concerned about food additives, while their style consciousness is somewhat low. These individuals express lowest child orientation (as one might expect at their stage in the life cycle). On the whole, this group exhibits extreme positions on some of the life style dimensions, while they enjoy a higher status compared with group one.

The modern group has the youngest respondents and is dominated by single heads of households with clerical/blue collar occupations. Their income is below average. This group lies on the polar extreme from the traditional group on life style dimensions. They are least religious and express highest levels of anxiety, holding the most liberal moral standards. They express the second lowest concern with food additives, and are most highly style conscious and child oriented. Respondents in the simplicity group are of average age, most likely to be married and have the highest professional skill levels. With this in mind, it is no surprise that this group enjoys the highest income of all groups. Their life styles represent mixed orientations. Persons exhibit lower than average religiosity, lowest anxiety and the most conservative moral standards. Their concern with food additives is lowest, they are highly style conscious, and express a low child orientation.

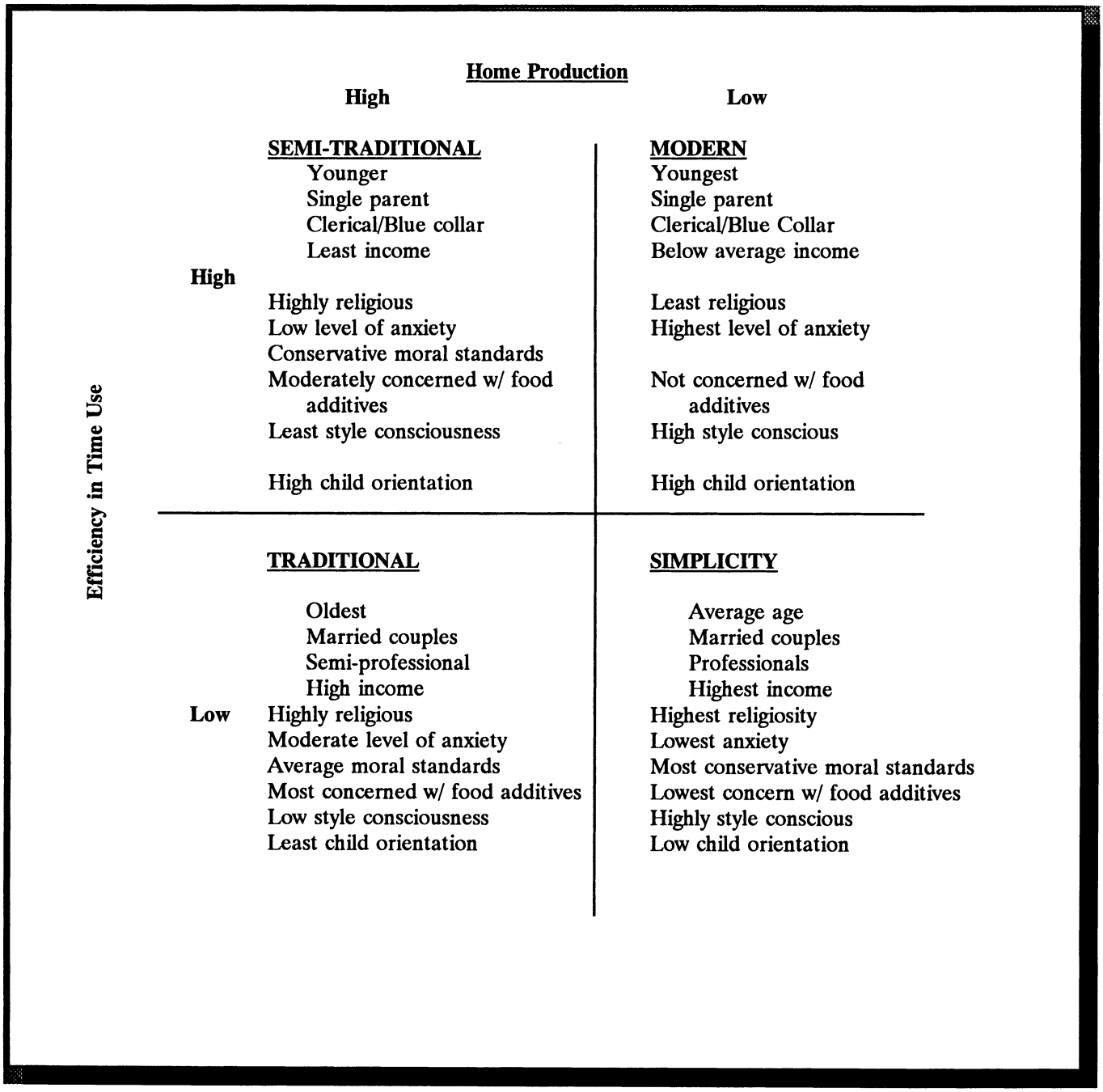
DISCUSSION

Our research was designed to investigate household consumption patterns and their implications to women's increasing participation in the workforce. The conceptual phase of our work identified major dimensions underlying household consumption patterns--home productions and efficiency in time use--and culminated in a framework to facilitate a more systematic examination of household consumption patterns. The empirical phase of our effort indicated that modeling household consumption around the two dimensions of home production and efficiency in time use provides useful insights into distinctive consumption patterns existing as a result of increasing time pressures within the household.

The socioeconomic-demographic profile of consumption patterns implied by the proposed model is strikingly similar to what has been found in earlier works. The study, however, has uncovered some additional insights into the lifestyle patterns of persons subscribing to various consumption patterns, providing a richer understanding of consumption phenomena within the household. A second look at the summary profile of the groups using the proposed classification relative to previous research strengthens this point (see Figure 2).

FIGURE 2

CONSUMPTION PATTERN PROFILES



The demographic profile of the traditional group confirms what Roberts and Wortzel (1979) found in describing a traditional orientation toward food preparation and is also consistent with Uusitalo's (1980) findings in Finland. However, analyses from the present study go beyond simple demographic descriptions to identify those life style patterns that are most closely associated with a traditional consumption pattern. For example, persons in this group are most highly concerned about food additives, perhaps as an indication of their concern for quality of food. This is certainly understandable since the group scores high on Home Production Index. On the whole, this group aspires to a traditional life style and its attendant symbolism.

Because of its location on the home production dimension (as measured by FPI-low) and time-saving dimension (as measured by TSI-high), the modern group is expected to maintain an "anti-cooking" attitude, and at the same time, exhibit high "concern for time." This general attitudinal profile is consistent with Roberts and Wortzel's (1979) findings with respect to a contemporary orientation toward food preparation. Furthermore, this group's life style represents a "trend setter" pattern. As can be seen from Figure 2, these persons are the polar opposite from the traditional in most respects.

Persons in the semi-traditional group score high on both home production and time saving dimensions. They are most similar to the traditional group in their life style. Hence, their high score on the time-saving devices may be indicative of their desire to emulate higher social status rather than a genuine concern for efficiency in time use. Therefore, as Uusitalo (1980) points out, a strong orientation towards home production may be associated with privatization of activities within the household unit, implying a desire to be independent from the outside world. Therefore, our semi-traditional, or what Uusitalo calls neo-traditional, would have a tendency to accumulate a wide variety of household durables .

Residents of the simplicity group exhibit low scores on both home production and time saving devices. Members possess many attributes of what has been referred to as "voluntary simplicity" in the literature. For example, their high income indicates that they can afford a more luxurious way of life, but that they voluntarily choose a low consumption, low energy life style (Kanter 1977; Leonard-Barton and Rogers 1979). In short, the chief characteristic of these people is a voluntary avoidance of exterior clutter, of many possessions they deem to be irrelevant to the main purpose of life.

On the whole, it appears that traditional and semi-traditional groups are more representative of the "middle class" America with respect to both socioeconomic characteristics and life style patterns, while modern and simplicity groups may represent emerging consumption patterns.

CONCLUSIONS

A major contribution of this paper lies in providing a categorization of consumption patterns based on the two dimensions of household production and efficiency in time use. The fact that significant differences were found among consumption pattern groups indicates that consumption patterns are multi-dimensional. Previous unidimensional views are probably too simplistic to represent the reality of consumption within the household.

Viewed as an extension of previous efforts, these findings show the multi-faceted nature of consumption patterns in the U.S. These data indicate that the most "simplistic" of consumption patterns is considerably more complex than imagined. Whereas intuition suggested this pattern to be of a "subsistance" nature, it may in fact be representative of consumption behavior that includes aspects of the "modern" dimensions (e.g., low home production) as well as attributes of a traditional pattern (e.g., low level of household technology). This further indicates that latent structures exist among the data that warrant additional scrutiny before conclusions concerning contemporary consumption patterns can be solidified.

This effort has provided a richer vision of consumption patterns than any earlier attempts. Certain life style constructs such as moral values, religiosity, child orientation, anxiety, and style consciousness expressed strong predictive validity in the explanation of consumption patterns. Among the socioeconomic-demographic variables, age, marital status, occupation and income, emerged as significant.

On the practical side, the proposed 2x2 matrix of home production and time-use can provide great insights into consumers. Its most obvious application is in the areas of segmentation and product strategies.

Producers/distributors of products whose purchases are motivated by either factor should consider segmenting along both dimensions. For example, both Semi-traditionals and Moderns in our study had low incomes and high child orientations. Both groups are also likely to be single parents, and have clerical/blue-collar occupations. However, Moderns would be more likely to be motivated by style in clothing purchases, while the Semi-traditionals least so affected. While both would be targets of retail discounters, one is more likely to produce own clothing (resulting in a need for designs, sewing machines, raw cloth), while the other would seek an up-scale product assortment at name brand outlets (perhaps factory outlets).

Similarly, our findings show Traditionals and those seeking Simplicity to be high income, highly religious and having lowest child-orientation levels. However, the former is very conscious of food additives, while the latter has the least of such inclinations. While both have few time-savers, one (Traditional), represents a better prospect for such products as food dehydrators and automatic breadmakers; the other might be targeted for ready-to-eat products and microwavables (as consistent with home-production indices).

Future research should address additional aspects of consumption patterns that were not amenable to investigation in this article due to the limitations of the data base. First, researchers should expand the domain validity of the home production index using a broader variety of products representing the typical basket of goods and services purchased and consumed within the household. Although we had to use food items as indicators of home production, the theoretical argument can be generalized to non-food items and services as well.

Second, exploiting cross-national data to examine consumption patterns in countries at similar and/or different stages of development could prove invaluable to understanding consumption phenomena over time within households. This study discovered similarities between certain consumption patterns in the U.S. and particularly Finland, but a broader empirical base is needed before making any generalizations.

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FOOTNOTES

1. The authors express their appreciation to William J. Wells for his release of these data.

2. Considerable debate has centered on the potential for upward biases in the parameter estimation stage which can result in inflated classification rates. Several techniques exist to reduce the problem (Crask and Perreault, 1977; McLaughlin, 1980), but these are of greatest benefit when samples are large relative to the number of predictors or criterion groups. When sample sizes do not permit split samples, Hallaq (1975) has suggested a useful alternative somewhat analogous to Hays (1981). In the present study the small cell size was a concern. Thus, the authors relied on Hallaq's approach to assess the question of parameter bias.

   Hallaq's solution is to solve for total between group variance explained by the equation, and then adjust the latter similar to the case of R2. The equation for total variance accounted for by the multiple discriminant function (biased) is given as:

$$^{w2}\text{Multi} = 1 - \frac{N}{(N-K)\,(1+1)\,(1+2)\ldots(1+r)+1}$$

   where 1.... r refer to eigenvalues found in function calculations, N represents total sample size, and K equals the number of predictor variables. The coefficient (w2) is interpreted identical to the unadjusted R2 that would result from ordinary multiple regression. The adjusted term is expressed as:

$$w2 = 1 - (1-w2)\,\frac{(N-1)}{(N-K-1)}$$

   In our case, calculation of Hallaq's (1975) indices showed that approximately 27 percent of the variance (unadjusted) was accounted for among the four groups by the predictor set. The adjusted coefficient dropped only slightly to 24 percent. Thus, we conclude that parameter bias may be of minimal concern in our findings.

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